VXI*plug&play* SOFTWARE KIT NI-VISA™ FOR SOLARIS 2.*x*: SUN AND GSUN FRAMEWORKS

Thank you for purchasing a National Instruments VXI*plug&play*-compliant controller. To comply with VXI*plug&play* specifications, a VXI controller must provide the VISA I/O driver library standardized by VXI*plug&play*. VISA ensures that your controller can run all VXI*plug&play*-compatible software now and in the future, while NI-VXI and NI-488.2 ensure that your controller can run the installed base of drivers and applications.

The NI-VXI and/or NI-488.2 driver software components are included with your controller, and the documentation that accompanies your controller describes how to install and use them. This VXI*plug&play* software kit includes NI-VISA, which is the National Instruments implementation of VISA, and related documentation. This document describes how to use the Setup program to install your NI-VISA software.

The NI-VISA software in this kit is compatible with the SUN and GSUN frameworks. With NI-VISA installed on your computer, you can run any VXI*plug&play* software compatible with these frameworks. This includes instrument drivers and executable soft front panel software included with VXI*plug&play*-compatible instruments from a variety of vendors.

Refer to the `readme.txt` file included with your software for the most up-to-date information about this release of NI-VISA.

CVI™, LabVIEW™, NI-488.2™, NI-VISA™, NI-VXI™, and VXIpc™ are trademarks of National Instruments Corporation. Product and company names are trademarks or trade names of their respective companies.

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What Do You Have?

Your kit contains the following software and documentation.

Software

The VXI*plug&play* disks are labeled **NI-VISA for Solaris 2.*x***
and contain the following software components:

- VISA Shared Object
- VISA GPIB-VXI Component
- VPP-6 Compliant Solaris Installer

You also receive the HyperHelp runtime system on the disks labeled as follows:

- NI-VISA HyperHelp Runtime Environment for Solaris 2.x
- NI-VISA HyperHelp Runtime Configuration Files

Acrobat (Online) Documentation

In addition to this *Read Me First* document, your kit includes two manuals that are not in printed form. These are available as Adobe Acrobat version 3.0 portable document format (PDF) files. The following list shows the path and filenames of the Acrobat manuals that are available after you install your software:

- `/opt/vxipnp/sun/NIvisa/Manuals/NI-VISAUsersMan.pdf`
  This is the *NI-VISA User Manual*, which describes how to program using VISA.

- `/opt/vxipnp/sun/NIvisa/Manuals/NI-VISAProgrammersMan.pdf`
  This is the *NI-VISA Programmer Reference Manual*, which describes in detail the attributes, events, and operations you use in NI-VISA.

You can view these manuals online, navigate through them, and print them from your computer. You must have at least Acrobat Reader 3.0 to view these documents. You can get the latest version of the reader directly from Adobe.

Adobe maintains a Bulletin Board Service (BBS), which you can use to upload files to Adobe Technical Support and download certain Adobe files. The number for the Adobe BBS is 206-623-6984. It is located in Seattle, Washington, which is in the Pacific time zone. If you live outside the United States or Canada, you are welcome to connect to the BBS, but may first want to try Adobe's Web site (`http://www.adobe.com/`) or FTP site (`ftp://ftp.adobe.com/`), which may be accessible at a significantly lower connection cost.

Here are some tips on using PDF files efficiently:

- To view and print the online documentation, launch the Acrobat Reader and open the PDF documents. You can assemble your own printed documentation by printing out either the entire document or only the sections relevant to your application.
- To use hypertext links, click on any entry in the table of contents to jump directly to that topic's page. You can jump to major sections within each manual quickly and easily by clicking on the bookmarks. When you open your PDF documents, the bookmarks show. A bookmark with a triangle in front of it has bookmarks within it. To reveal the next level, click on the triangle. To collapse to a higher level, click on the triangle.
- You can change the magnification of the documents either by selecting the magnifying glass tool in the toolbar and clicking anywhere on the manual page or by using the various options in the **View** menu.
- You can quickly find and go to every occurrence of any word or phrase in the entire document. Select the **Tools»Find...** option and type in the key word or phrase you want to find.
- The PDF file assigns consecutive numbers to each page throughout the document and displays this page number in the lower-left corner of the Acrobat window. When you choose the **View»Go To Page...** option or wish to print specific pages, you must use the page numbers in the lower-left corner of the window, not the number displayed at the bottom center of each manual page or listed in the contents and index. The number shown in the bottom center of the page is for printed documents only.

Supported Application Development Environments

This release of NI-VISA for Solaris 2.*x* supports the following Application Development Environments (ADEs):

- LabVIEW version 4.*x*
- LabWindows™/CVI version 4.*x*
- gcc version 2.6.3
- cc version SC 3.0.1

☞ **Note** ***Although NI-VISA has been tested and found to work with these ADEs, other ADEs or higher versions of the ADEs listed above may also work.***

Where Do You Start?

Step 1. Install LabVIEW and/or LabWindows/CVI (Optional)

If you want to use LabVIEW and/or LabWindows/CVI as VISA application development environments, install them first. The NI-VISA installer offers to install the appropriate support files in an existing LabVIEW and/or LabWindows/CVI installation.

If you install LabVIEW and/or LabWindows CVI after you install VISA, you may need to rerun the NI-VISA installer to ensure you have the latest VISA support files.

Step 2. Install Your NI-VXI/NI-488.2 Driver Software

The installation method varies depending on the type of controller you purchased, as shown in the following table. Refer to the documentation that came with your controller for detailed installation instructions.

Controller	Installation
VXI-SB2020 MXI controller VXI-PCI8022 MXI-2 controller	Install the NI-VXI for Solaris 2.*x* software.
GPIB-VXI/C controller or any National Instruments GPIB board that has a Solaris driver	Install the NI-488.2 for Solaris 2.*x* software.

If you plan to use NI-VISA with only the serial ports of your computer, you do not need to install NI-VXI or NI-488.2.

Step 3. Install Your NI-VISA Software

Installing from Floppy Disk

1. Type the following command to change to a temporary directory:

   ```
   cd /tmp
   ```

2. Type one of the following commands to copy the install script from the NI-VISA diskette:

   - If you are *not* running volume management:

     ```
     tar xvf /dev/diskette INSTALL
     ```

   - If you *are* running volume management:

     ```
     tar xvf /vol/dev/rdiskette0/unlabeled INSTALL
     ```

Note ***The device name shown in this code example may be different for your system. Please refer to your system's user guide or system administrator for the correct device name. If it is different, modify the install script to reflect the correct device name.***

3. Type the following command to execute the install script:

   ```
   ./INSTALL
   ```

   Follow the instructions as prompted.

4. Type the following command to remove the install script:

   ```
   rm INSTALL
   ```

5. Add the following environment variables to your shell setup file as shown in the following example for `csh`. The following commands assume that you installed NI-VISA into `/opt/vxipnp`:

   ```
   setenv VXIPNPPATH /opt/vxipnp
   setenv LD_LIBRARY_PATH /opt/vxipnp/sun/bin
   ```

Note ***If your shell setup file already contains the*** `LD_LIBRARY_PATH` ***variable, append*** `/opt/vxipnp/sun/bin` ***to the end of the statement. The required commands may vary from those shown in the previous section if you are not using*** `csh`**.**

Installing from CD

1. Type the following command to change to the VISA directory on the CD-ROM:

   ```
   cd /cdrom/visa/solaris2
   ```

Note ***The directory name shown in this example may be different for your system, depending on whether you are running volume management. Please refer to your system's user guide or system administrator for the correct device name.***

2. Type the following command to execute the install script:

   ```
   ./INSTALL
   ```

   Follow the instructions as prompted.

3. Add the following environment variables to your shell setup file as shown in the following example for `csh`. The following commands assume that you installed NI-VISA into `/opt/vxipnp`:

   ```
   setenv VXIPNPPATH /opt/vxipnp
   ```

   ```
   setenv LD_LIBRARY_PATH /opt/vxipnp/sun/bin
   ```

Note ***If your shell setup file already contains the*** `LD_LIBRARY_PATH` ***variable, you need to append*** `/opt/vxipnp/sun/bin` ***to the end of the statement. The required commands may vary from those shown in the previous section if you are not using*** `csh`***.***

Step 4. Install the HyperHelp Runtime Environment

Note ***If you have installed LabVIEW version 4.x on your system, the HyperHelp Runtime Environment was installed for you, so you may omit this step.***

This section describes how to install the HyperHelp Runtime Environment file. You must install this file to access the NI-VISA online help. To install the file, complete the following steps:

1. Identify the directory in which you want to install HyperHelp, and switch to that directory.

   For example, if you want to install HyperHelp under the `/opt` directory (the recommended directory), enter the following command:

   ```
   cd /opt
   ```

   The HyperHelp installation procedure creates a `hyperhelp` subdirectory in the current working directory.

2. Type the following command to insert the HyperHelp media into your installation device and copy the HyperHelp archive files:

   ```
   tar xvf /dev/rfd0
   ```

Note ***The device name shown in this code example may be different for your system. Please refer to your system's user guide or system administrator for the correct device name.***

   Repeat this procedure for all HyperHelp runtime environment and configuration diskettes.

3. Type the following commands to uncompress and unzip the HyperHelp files:

   ```
   uncompress *.Z
   ```

   ```
   ./gunzip.sol2 *.gz
   ```

   The `gunzip` utility is distributed under the terms of the GNU General Public License solely for the purpose of uncompressing the HyperHelp files. In accordance with the terms of the license, to obtain source code for the `gunzip` utility, send an e-mail to `support@bristol.com`.

4. Type the following command to unarchive each file that ends with the `.tar` extension:

   `tar xvf` *`filename`*`.tar`

5. Set the `HHHOME` environment variable to the location of the HyperHelp files. Add the following corresponding lines to your login file:

   C shell users:

   `setenv HHHOME` *`install_dir`*`/hyperhelp`

   Korn shell or Bourne shell users:

   `HHHOME=`*`install_dir`*`/hyperhelp;export HHHOME`

6. Add `$HHHOME/bin` to your `PATH` environment variable.

Step 5. Check the Readme File for Latest Updates

Please refer to the `readme.txt` file for important information that may affect your application program, including known issues and software corrections with this release, and additional information relevant for NI-VISA API development. Use the following path to reach the `readme.txt` file:

```
/opt/vxipnp/sun/NIvisa/readme.txt
```

You can also reference the National Instruments `www.natinst.com` or `ftp.natinst.com` sites for driver updates, examples, and product news.

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